

Patent claims

1. Process for the production of polyurethanes and/or polyureas by the conversion of
 (A) compounds containing at least two isocyanate groups with
 (B) compounds containing at least two reactive hydrogen atoms
 in the presence of one or more catalysts, at least one of the catalysts
 (C) being an amine oxide and/or showing at least one amine oxide group.

2. Process according to claim 1, characterized by the fact that the amine oxide
 10 shows at least one group of the general formula (I)



in which R¹, R² and R³ independently of each other can be for a linear or branched hydrocarbon residue with 1 to 22 carbon atoms and the residues R¹, R² and/or R³ can contain part of one or
 20 more cyclic residues and/or heteroatoms such as nitrogen or oxygen or sulfur.

3. Process according to claim 2, at least one R¹, R² and R³, independently of each other,
 standing for ethyl, n- or iso-propyl or n-, iso- or tertiary butyl.

25 4. Process according to one of the preceding claims, characterized by the fact
 that the amine oxide shows at least one residue linked to the nitrogen atom with β-hydrogen
 atom, in particular -CH₂-CH₂-.

5. Process according to one of the preceding claims, characterized by the fact
 30 that the amine oxide is selected from the group consisting of triethylamine-N-oxide,
 N-ethylmorpholine-N-oxide, N-methylmorpholine-N-oxide, diethylcetylamine-N-oxide,
 dimethylcyclohexylamine-N-oxide, ethyldicyclohexyl-amine-N-oxide, N,N,N',N'-tetra-ethyl-
 bisaminoethyl ether-di-N,N'-oxide, diethylcyclohexylamine-N-oxide and
 diethypiperazine-N-oxide.

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6. Process according to one of the preceding claims, characterized by the fact that the amine oxide is used at 0.01 to 5 % by wt., preferentially at 0.05 to 1 % by wt., based on the weight of compounds with reactive hydrogen atoms used.

5 7. Process according to one of the preceding claims, characterized by the fact that the compounds containing at least two reactive hydrogen atoms consist mainly of a polyether with at least two free hydroxy groups.

8. Process according to one of the preceding claims, characterized by the fact 10 that additionally metal salts of organic compounds can be used as catalysts.

9. Process according to one of the preceding claims, characterized by the fact that besides the amine oxides no tertiary amine catalysts are used.

15 10. Process according to one of the claims 1 to 9 characterized by the fact that besides the amine oxides no further polyurethane/polyurea catalysts are used.

11. Composition containing the components (A), (B) and (C) according to one of the preceding claims.

20 12. Composition according to claim 11 containing also one or more tenside compounds as stabilizers, in particular silicones.

25 13. Use of the composition according to claim 11 or 12 for the production of polyurethane foams, polyurethane adhesives or polyurethane coatings.

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